

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/576,693	KUBO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David T. Fox	1638	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 15 September 2010.
2. ☒ The allowed claim(s) is/are 1,13-15,17-21,23-26 and 32-49 renumbered as 1-31.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>11/15/10</u>.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
|---|--|

David T Fox  
Primary Examiner  
Art Unit: 1638

***Examiner's Amendment***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

**IN THE SPECIFICATION:**

On page 1 of the specification, immediately below the title, the following paragraph was inserted:

---This application is a 371 of PCT/JP04/15743 filed 22 October 2004.---

**IN THE ABSTRACT:**

In the Abstract of 26 January 2007, the paragraph break between lines 3 and 4 was deleted, so that the Abstract is a single paragraph.

**IN THE CLAIMS:**

Claims 13-14, 17-18 and 23-26 were amended as follows.

---Claim 13 (currently amended). A method for producing a genomic DNA fragment capable of bringing about an agriculturally advantageous phenotypic variation in plants comprising the steps of:

culturing E. coli cells containing a cloning vector carrying [a] the purposed genomic DNA fragment selected by the method according to claim 1; and

[preparing] amplifying the cloning vector comprising the genomic DNA fragment [amplified] in the E. coli cells [along with the genomic DNA fragment].---

In claim 14, line 1, ---purposed--- was inserted after "the".

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---Claim 17 (currently amended). A method for producing a plant having an agriculturally advantageous phenotypic variation comprising the step of introducing a purposed genomic DNA fragment capable of bringing about an agriculturally advantageous phenotypic variation in plants, wherein the genomic DNA fragment is screened by the method according to claim 1; [and] the method further [comprises] comprising the steps of:

culturing E. coli cells containing a cloning vector carrying the purposed genomic DNA fragment, and

[preparing] amplifying the cloning vector comprising the purposed genomic DNA fragment [amplified] in the E. coli cells [along with the genomic DNA fragment].---

In claim 18, line 2, ---purposed--- was inserted before “genomic”.

---Claim 23 (currently amended). A method for analyzing a plant genomic DNA fragment capable of bringing about an agriculturally advantageous phenotypic variation, said method comprising the steps of:

culturing E. coli cells containing a cloning vector carrying [a] the purposed genomic DNA fragment selected by the method according to claim 1;

[and preparing] amplifying the cloning vector[s] comprising the purposed genomic DNA fragment [amplified] in the E. coli cells [along with the genomic DNA fragment], and

reading the nucleotide sequence of the plant genomic DNA fragment in the cloning vector.

Claim 24 (currently amended). A method for analyzing a DNA fragment comprising the step of digesting with restriction enzyme(s) [restricting] the purposed genomic DNA fragment selected by the method according to claim 1.---

In claim 25, line 1, ---purposed--- was inserted before “genomic”.

In claim 26, line 2, ---digest--- was inserted after “restriction”.

Authorization for this examiner’s amendment was given in a telephone interview with Susan W. Gorman on 18 November 2010.

***Reasons for Allowance***

The following is an examiner’s statement of reasons for allowance:

The claims are allowed, in view of the failure of the prior art to teach or reasonably suggest a method for isolating genomic DNA fragments from a donor plant and randomly introducing them into a recipient plant, wherein neither the donor nor the recipient was selected for a particular phenotype, followed by selecting the transformed recipients on the basis of an agriculturally advantageous variation, and selecting the particular advantageous genomic DNA fragment therefrom, when the donor and recipient plant are of the same species; or a method further comprising the step of reintroducing the selected genomic fragment into another plant, when the donor and recipient plants are of different species; as stated on page 17 of the Office action of 16 March 2010.

In addition to the basis for the claim amendments set forth by Applicant on page 10 of the Response of 15 September 2010, the Examiner finds support in paragraph [0060] which bridges pages 24 and 25 of the specification; and on page 25, paragraph

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[0061]. The agriculturally advantageous phenotypes are broadly contemplated and bidirectional, avoiding the requirement for pre-selecting a particular recipient plant based on pre-transformation phenotype. This is supported by Applicant's choice of the standard corn cultivar A188 and the standard tobacco cultivar SR1 as recipient plants in Examples 6 and 7; as particularly stated on page 51 of the specification, bottom paragraph, third sentence; and page 58 of the specification, paragraph [0119], last sentence.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (571) 272-0795. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David T Fox/  
Primary Examiner, Art Unit 1638  
November 19, 2010